

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

QR



**LARGE SCALE
COMPOST MAKING**

ORGANIC METHODS FOR QUALITY CROPS

It is universally recognised that organic matter in some form must be incorporated in the soil if fertility is to be maintained.

Animal manure has been used for thousands of years for this purpose and where it is available in sufficient quantities there is no need to look for other materials. Before use it should be treated with Q.R. as described on page 3, thus greatly increasing its fertilising value.

Except, however, where mixed farming is practised, there is always a serious shortage of animal manure. Fortunately, well-made compost is a complete substitute and the introduction of Q.R. has not only quickened the speed of manufacture but has also increased the value of the finished material, particularly as regards its nitrogen content.

The rules of compost making are elastic but care taken in the preparation of the heap will be rewarded with a better result.

General Rules for Building Compost Heaps

To decompose vegetable matter requires, among other things, the correct degree of moisture content and a supply of air.

To save transport, the site for the heap should be as near the ground on which it is to be used as possible and preferably in a position sheltered from cold drying winds and dripping trees away from areas where surface water accumulates. In very hot climates it is desirable to make use of shade to prevent quick drying out.

Materials To Use

The following materials can be used : Straw, digested sewage sludge either mixed with vegetable matter or alone, town waste, weathered sawdust, bracken, seaweed, road sweepings (tar free), grass clippings and many crop residues including potato, peas, tomatoes, vines, corn stems, etc. In fact, any vegetable material is suitable

providing it is not too tough to be cut with a spade. Hard material is best cut up into 12 inch lengths or less. Far the best results are obtained if a mechanical shredder is available but this is rarely the case.

How to Build a Heap

A base layer of hard, woody material will assist aeration and so will loosening the first spit, particularly on grassland where an acid layer may form, hindering bacterial and worm activity. The heap should not exceed six feet in width unless special provision is made for ventilation, otherwise airless conditions will occur in which the majority of the necessary bacteria are unable to live. Build the heap as quickly as possible. Do not therefore be over-ambitious and make too large a heap but limit its size to the quantity of the material you have immediately available.

Baled straw is the best material to use for the walls; it provides a neat convenient method of making the heap and enables the compost to decompose fully to the extent of the walls and assist the retention of the heat of decomposition. Many heaps, however are made without any retaining walls at all.

Treatment of Materials

Where possible, dry materials should be mixed with

fresh green matter in alternate layers. Straw of any description should be wetted uniformly and thoroughly either with water, activated liquid manure or compost water. Dry leaves are very difficult to break down and should not be included in the heap unless they can be shredded. The best way to use them is to let them break down slowly in a heap of their own and then add them to a compost heap after a year or so.

Build in Layers

Materials to be used in the heap should be placed in layers not exceeding six inches in thickness, or less in the case of wet succulent substances like grass clippings or chicory leaves.

The addition of animal manure in some form is not essential. If, however, any is available it should be added to the heap in thin layers. It will improve the value of the finished compost. The technique of composting straw with small quantities of manure is described later in the leaflet.

Light sprinklings of lime and soil either separately or together should be added every 12 inches. Any form of lime which will counteract acidity can be used at the rate of one ounce per two square yards. Ground or crushed chalk is of value. Lime and manures should not be placed in contact

with one another. The object of including soil is to introduce bacteria into the heap ; top-soil, which contains most bacteria, should therefore be used. Ripe compost is an excellent substitute for soil and should therefore be used wherever possible.

Height of Heap

The heaps should be built to about six feet in height except when made of straw only, when the height may be eight feet. The level of the compost will sink to two-thirds or half its original height according to the materials used in the heap. Where dry, springy materials are used, such as straw, bracken, etc., each layer should be well trodden down to ensure that it is everywhere in close contact with the layer below and that there are no air-pockets. Wet materials such as fruit wastes, heavy manure, sewage sludge, etc., should be added as lightly as possible as otherwise air will be excluded.

Top Covering

The final covering of the heap can either be an inch or two of soil or a rough thatch of straw sloped to carry off rainwater. The heap must on no account be allowed to become sodden. In hot, dry climates however it may be difficult to keep the heaps moist enough. Under these circumstances it is a good plan to make the top of the heap

concave instead of convex so as to catch any rain that falls and so make it easier to irrigate the heap when necessary.

Care of the Heap

In large heaps vertical air holes are very necessary. These should be spaced at three feet intervals down the centre of each heap, or a double row if the width exceeds six feet. If the heap seems to be drying out, the outside should be wetted with water or preferably manure or compost water. Try to wet evenly and avoid saturation. There may be a certain amount of leaching from the bottom of the heap if no retaining wall is used. In such a case it is well to spread a thin layer of sawdust, peat or other absorbent organic matter round the base of the heap. This material can be incorporated in the next heap which is made and will add to the value of the finished compost.

Treating the Heap with Q.R.

The heap is treated as it is being made by sprinkling each layer with Q.R. solution. To make this, mix Q.R. powder with rain-water, one teaspoonful to the pint. Small quantities are best made by shaking up in a bottle; larger quantities by stirring up thoroughly in a bucket. Allow the mixture to stand for about four hours before using it. It will keep

for a fortnight, but shake or stir again before use.

Use about three ounces (about six tablespoonfuls) for each square yard. Treat each layer with a very fine sprinkle, trying to wet the whole surface. One method is to use a bottle with a cork with two small wedges cut in the base, one each side. Or the job can be done with a fine rose-d can.

Straw Composting

Build layers of straw to a thickness of about six inches and wet with liquid manure from a urine tank or activated manure tub (described below), wetting each layer thoroughly, using at least four gallons per square yard of surface area.

A dividing layer of manure with a sprinkling of soil or of soil and lime between each layer of soil is essential. The straw should be trodden down so that no air-holes exists between the layers. Bruised straw decomposes more readily than fresh straw. Treat with Q.R. and then complete the heap as described above.

Turning

The process of decomposition of large commercial heaps will be greatly accelerated by turning the heap once about three to four weeks after building. If desired the heap can be treated again with Q.R. during the turning process but this is not essential. Heaps made chiefly of fresh green materials will often break down quite

successfully without any turning at all but where the material is very dry and strawy one turn is practically essential.

Activating a Urine or Septic Tank

If a farm has a urine tank, it can be activated by soaking sand with Q.R. solution and scattering it over the surface of the tank. The sand sinks and frees the activator to do its work. Allow one pint to 20 square feet of surface area of the tank. This treatment removes all offensive smell from the liquid manure. A domestic septic tank can be treated in exactly the same way with excellent results provided that bacteriocidal disinfectants have not been introduced into the tank.

Activated Manure Tub

Sink a wooden barrel into the soil and fill it to within three inches of its brim with fresh animal manure. Treat the contents with Q.R. solution. Three ounces will be sufficient for any size up to 40 gallons, i.e. about six tablespoonfuls of the liquid. Cover the barrel with a lid to keep the rain out. In 14 days it will be ripe enough to use. Do not use a metal container.

To use, mix one trowelful of the contents in a gallon of water to make a stock solution; then redilute to tea colour (one pint to one gallon). This is called activated manure water.

Treating Manure

Stable and farmyard manure should always be treated with Q.R. solution. Use one pint for each cubic yard. The solution should be poured into vertical holes reaching to within six inches of the bottom of the heap and spaced about 18 inches to 24 inches apart. After treatment, the holes should be filled with top-soil or compost. In about six weeks the heap will ripen to a rich friable humus and look like three year old manure.

HOW To Use Compost

When the compost is judged to be ready, tease with a fork. If it smells sweet and breaks up readily it can be used at once. It will not deteriorate if left for several months. For a general dressing, apply half the quantity you would use if you were using farmyard manure, keeping the compost in the top six inches of soil. The finished compost should be cut vertically with a spade, as the nutrients leach to the bottom of the heap. The walls of the heap and any undecomposed materials should be cut away and incorporated in the next heap.



Loading up Q.R. Compost.

CHASE PROTECTED CULTIVATION LIMITED

SE

**8304 BOTHELL WAY
SEATTLE 5, WASH., U. S. A.**

ENGLAND

Printed

shford, Middlesex,

